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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/090,050 | 02/27/2002 | Ramamoorthy Rajagopalan | AP-40 | 6787 |
| 1473 | 7590 | 09/09/2004 | EXAMINER | |
| FISH & NEAVE 1251 AVENUE OF THE AMERICAS 50TH FLOOR NEW YORK, NY 10020-1105 | | | RILEY, SHAWN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2838 | |

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|--|---|
| Office Action Summary | Application No. 10/090,050 | Applicant(s) RAJAGOPALAN, RAMAMOORTHY | |
| | Examiner Shawn Riley | Art Unit 2838 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>oct03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 3718 of this title before the invention thereof by the applicant for patent.

2. Claims 1-7, 11, 13-21 are rejected under 35 U.S.C. §102(e) as being fully anticipated by Oughton (U.S. Patent 6,753,622). Oughton shows,¹ (in, e.g., the(ir) figures 1 and 3 and corresponding disclosure)

As to claim 1;

Universal uninterruptible power supply (UPS) input circuitry configured for connecting a backup power system selected from one or more different types of backup power systems to a UPS system, the input circuitry comprising: a diode bridge (210) coupled to receive power from the selected backup power system (input into 210); a boost converter (222) coupled to receive the power from the diode bridge; an auxiliary converter (second 220) coupled to inputs of the selected backup power system; and a software unit (note discussion of rectifier circuit 110 may include switching devices, such as diodes or other solid state switching devices, as well as other circuitry, including

¹ Note claims will be addressed individually and the material in parentheses are the examiner's annotated comments. Further unless needed for clarity reasons, recited limitation(s), will be annotated only upon their first occurrence. Annotated claims begin with the phrase "As to claim". Claims that are not annotated are seen as having already had the invention(s) addressed previously in an annotated claim.

processing circuitry the executes instructions in the form of computer software or firmware, that control such switching devices, see, e.g., column 5 lines 18-23) coupled to the input circuitry, wherein the software unit configures the input circuitry to operate in conjunction with the selected backup power system.

As to claim 2;

The input circuitry of claim 1, wherein the software unit monitors at least one parameter associated with the selected backup system (figure 1 shows some of the parameters monitored into the control circuitry of 126).

As to claim 3;

The input circuitry of claim 1, wherein the software unit monitors at least one parameter associated with the input circuitry (figure 1 shows some of the parameters monitored into the control circuitry of 126).

As to claim 4;

The input circuitry of claim 1, wherein the software unit provides a user interface that allows a user (user is seen as that person which programmed the software, e.g.,) to select which backup system is coupled to the input circuitry.

As to claim 5;

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The input circuitry of claim 1, wherein the software unit controls the selected auxiliary converter to provide an operational signal (figure 1 shows how the auxiliary converter, the same both converter, are controlled).

As to claim 6;

The input circuitry of claim 5, wherein the operational signal is provided to the selected backup system to maintain the selected backup system in a ready state (the auxiliary converter is held in reserve until needed for use in the system).

As to claim 7;

The input circuitry of claim 5, wherein the operational signal is provided to the diode bridge to compensate for signals generated by the selected backup system (see, column 5 lines 22-24 discussing control of the diode bridge).

As to claim 11;

The input circuitry of claim 1, wherein the diode bridge comprises a plurality of diodes (see, e.g., figure 3 element 210).

For method claims 13-20, note that under MPEP 2112.02, the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. In

words/phrases indicate objected to material.

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re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986). Therefore the previous rejections based on the apparatus will not be repeated.

13. A method for configuring universal uninterruptible power supply (UPS) input circuitry to connect a backup power system selected from one or more different back-up systems to a UPS system, the method comprising: coupling the selected backup system to the input circuitry; indicating which backup system was selected to a software unit; configuring the input circuitry to operate in conjunction with the backup system based on the indication; and operating the input circuitry such that power is substantially continuously provided to a load.

14. The method of claim 13, wherein the indication comprises selecting a particular type of backup system that is coupled to the input circuitry.

15. The method of claim 13, wherein the configuring comprises activating a first monitoring device.

16. The method of claim 13, wherein the operating comprises controlling an auxiliary converter to provide a motoring function for the selected backup system

17. The method of claim 13, wherein the operating comprises controlling an auxiliary converter to provide a battery charging function for the selected backup system.

18. The method of claim 13, wherein the operating comprises controlling an auxiliary converter to provide an active filtering function for signals generated by the selected backup system.

19. The method of claim 13, wherein the operating comprises ensuring that the selected backup system is constantly ready to provide power to the load.

20. The method of claim 13, further comprising upgrading software resident in the software unit to accommodate additional backup power systems.

As to claim 21 (see rejection of claim 1, e.g.,)

Universal uninterruptible power supply (UPS) input circuitry configured for connecting a backup power system selected from one or more different types of backup power systems to a UPS system, the input circuitry comprising: a boost converter coupled to receive the power from the selected power system; an auxiliary converter coupled to inputs of the selected backup power system; and a software unit coupled to the input circuitry, wherein the software unit configures the input circuitry to operate in conjunction with the selected backup power system.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

4. Claims 8-10, 12, and 22-26 are rejected under 35 U.S.C. § 103 as being unpatentable over Oughton, Jr (U.S. Patent 6,753,622). The Oughton, Jr reference discloses the limitations of the invention as claimed as described above. However, Oughton, Jr does not show auxiliary unit to operate as a motor controller/battery charger/active filter. It would have been obvious at the time the invention was made to utilize the auxiliary unit to operate as a motor controller/battery charger/active filter in the circuit of Oughton, Jr. for the reason of design choice. That is, with regard to claims 8-10 the statement that “auxiliary unit to operate as a motor controller/battery charger/active filter”, it has been held that a recitation with respect to the manner or method in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. See *Ex parte Wikdahl*, 10 USPQ2d 1546, 1548 (Bd. Pat. App. & Inter. 1989); *Ex parte Masham*, 2 USPQ2d 1647, 1648 (Bd. Pat. App. & Inter. 1987); *In re Casey*, 370 F.2d 576, 152 USPQ 235, 238 (CCPA 1967); see also M.P.E.P. § 2111.02. A process or environment of use limitation in an apparatus claim will not patentably distinguish the claim from the prior art unless it somehow imposes a structural limitation.

“[I]ntended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art.”

M.P.E.P. § 2111.02 (citing *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963)).

5. Claim 12 is rejected under 35 U.S.C. § 103 as being unpatentable over Oughton, Jr (U.S. Patent 6,753,622). The Oughton, Jr reference discloses the limitations of the invention as claimed as described above. However, Oughton, Jr does not show the diode bridge comprises a plurality of thyristors. Official Notice is taken that it would have been obvious at the time the invention was made to utilize the diode bridge as a plurality of thyristors in the circuit of Oughton, Jr. for the reason of equivalent operation and it is often utilized as a rectifier bridge and therefor official notice is taken that thyristors for diodes are commonly used as a diode bridge.

Claim 22-26 are rejected under 35 U.S.C. § 103 as being unpatentable over Oughton, Jr (U.S. Patent 6,753,622). The Oughton, Jr reference discloses the limitations of the invention as claimed as described above. However, Oughton, Jr does not show universal UPS input circuitry having first circuitry or a third backup power system that can be coupled to said UPS system without utilizing said universal UPS input circuitry. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a first circuitry or a third backup power system that can be coupled to said UPS system without utilizing said universal UPS input circuitry as the courts have held that a change in shape or configuration, without any criticality, is within the level of skill in the art as the particular configuration claimed by applicant is nothing more than one of numerous configurations that a person having ordinary skill in the art will find obvious to provide using routine experimentation based on its suitability for the intended use of the invention. See *In re Dailey*, 149USPQ 47 (CCPA 1976).

Allowable Subject Matter


6. No claims are allowable over the prior art of record.

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Conclusion

Any inquiry from other than the applicant/attorney of record concerning this communication or earlier communications from the Examiner should be directed to the Patent Electronic Business Center (EBC) at 1.866.217.9197. Any inquiry from a member of the press concerning this communication or earlier communications from the Examiner or the application should be directed to the Office of Public Affairs at 703.305.8341. Any inquiry from the applicant or an attorney of record concerning this communication or earlier communications from the Examiner should be directed to Examiner Riley whose telephone number is 571.272.2083. The Examiner can normally be reached Monday through Thursday from 7:30-6:00 p.m. Eastern Standard Time. The Examiner's Supervisor is Mike Sherry who can be reached at 571.272.2084. Any inquiry about a case's location, retrieval of a case, or receipt of an amendment into a case or information regarding sent correspondence to a case **should be directed to 2800's Customer Service Center** at 571.272.2815. Any papers to be sent by fax MUST BE sent to fax number 703.872.9306. Any inquiry of a general nature of this application should be **directed to the Group receptionist** whose telephone number is 571.272.2800. Status information of cases may be found at <http://pair-direct.uspto.gov> wherein unpublished application information is found through private PAIR and published application information is found through public PAIR. Further help on using the PAIR system is available at 1.866.217.9197 (Electronic Business Center).

September 04


Shawn Riley
Primary Examiner